

Environmental Restoration Disposal Facility

Restore the River Corridor • Transition the Central Plateau • Prepare for the Future



Low-level waste is unloaded from a special truck for disposal in Hanford's Environmental Restoration Disposal Facility.

Environmental Restoration Disposal Facility



Construction for
cells 5 and 6
begins in FY04

Current disposal
operations, cells
3 and 4

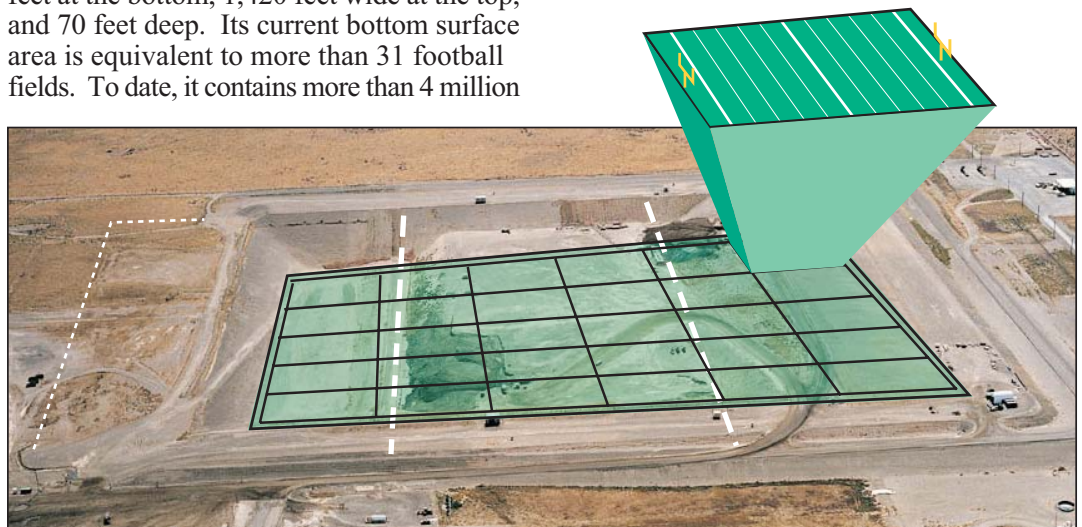
Interim cover,
cells 1 and 2

Background

The Environmental Restoration Disposal Facility (ERDF) plays a significant role in soil remediation operations at the Hanford Site. In fact, cleanup of the Columbia River Corridor would not be possible if it were not for ERDF. The massive trench, opened in 1996, currently consists of four "cells," with two more planned for construction in the near future. Each pair of cells is 500 by 1,000 feet at the bottom, 1,420 feet wide at the top, and 70 feet deep. Its current bottom surface area is equivalent to more than 31 football fields. To date, it contains more than 4 million

tons of contaminated waste -- only a quarter of what it is expected to receive throughout Hanford cleanup. If it were empty, ERDF could contain the volume of 396 Goodyear Blimps.

ERDF has both a primary and secondary liner system that contains and collects water. The water, also referred to as "leachate," contains hazardous chemicals and radioactive nuclides



The bottom surface area of the Environmental Restoration Disposal Facility is larger than 31 football fields.

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Workers remove contaminated soil from along the Columbia River corridor, and truck it to the Environmental Restoration Disposal Facility for disposal.



from the deposited waste. The liner system prevents these harmful substances from reaching the groundwater under the trench. In addition, as a natural barrier to groundwater contamination, ERDF sits in the middle of the Hanford Site -- known as the Central Plateau -- which the original designers chose because the distance to groundwater is more than 240 feet from the bottom of the trench. Once Hanford cleanup is complete, an engineered barrier system that acts as a roof will cover the top of ERDF to help prevent rainwater from leaching radioactive and hazardous contaminants into the groundwater.

Process/Progress

During cleanup, heavy equipment operators at the various cleanup sites place mostly soil-type wastes into portable transport containers that can hold up to 20 tons. Once the containers travel to ERDF, another operator uses a specially designed truck to take the containers into the trench and dump the waste, which is then spread and compacted by a bulldozer.

Compaction of the waste is a key activity, watched carefully by ERDF operators, to ensure safe long-term storage of the waste without settlement cracks and crevasses. At the end of each day, ERDF operators perform tests to ensure the day's deposited waste was properly compacted before spraying the newly-deposited waste with a polymer-based fixative that prevents wind-blown dust from spreading contamination outside of the trench. ERDF receives about 3,000 tons of waste per day, and over its lifespan, expects to receive about 16 million tons of waste from Hanford cleanup.

For more information

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